

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/KR03/01692

## A. CLASSIFICATION OF SUBJECT MATTER

IPC7 C10L 1/30

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7 C10L 1/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
Korean Patents and applications for inventions since 1975  
Korean Utility models and applications for Utility models since 1975Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
eKIPASS

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	KR 2003-54768 A (Saint Cross Co., Ltd.) 02 July 2003 see page 2	1-6
A	KR 2000-73621 A (Y.G. KIM) 05 December 2000 see claims	1-6
A	JP 05-59377 A (OKADATORU) 09 March 1993 see claims	1-6
A	JP 04-65489 A (GAK KEN Co., Ltd.) 02 March 1992 see claim	1-6
A	JP 04-117493 A (GAK KEN Co., Ltd.) 17 April 1992 see claim	1-6
A	US 6419713 B (REGAL UNIVERSAL Ltd.) 16 July 2002 see the whole document	1-6
A	US 4997457 A (YUGEN KAISHA GUNMA KAKOH SEIZO) 05 March 1991 see the whole document	1-6

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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"&" document member of the same patent family

Date of the actual completion of the international search

29 OCTOBER 2003 (29.10.2003)

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/KR03/01692

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
KR 2003-54768 A	02.07.2003	NONE	
KR 2000-73621 A	05.12.2000	NONE	
JP 05-59377 A	09.03.1993	NONE	
JP 04-65489 A	02.03.1992	NONE	
JP 04-117493 A	17.04.1992	NONE	
US 6419713 B	16.07.2002	WO 9937743 A AU 2042199 A CA 2319616 A EP 1049760 BE 1012520	29.07.1999 09.08.1999 29.07.1999 08.11.2000 07.11.2000
US 4997457 A	05.03.1991	JP 02-182784 A KR 1997-7495 B	17.07.1999 09.05.1997